



All dimensions are in mm; tolerances according to ISO 2768 m-H

Interface

According to IEC 61169-54

Documents

Application note AN001 "Calibration Services"

Material and plating

Connector parts

- Center conductor
- Outer conductor
- Coupling nut
- Dielectric

Material

- Brass
- Stainless steel
- Stainless steel
- PTFE

Plating

- Gold, min. 1.27 µm, over nickel
- Passivated
- Passivated

Dieses Dokument ist urheberrechtlich geschützt • This document is protected by copyright • Rosenberger Hochfrequenztechnik GmbH & Co. KG

RF_35/09;14/6.2

Electrical data

Frequency range	DC to 12 GHz
Return loss	≤ 0.15 dB, DC to 12 GHz
Error from nominal phase ¹	≤ 2.0°, DC to 4 GHz ≤ 2.5°, 4 GHz to 6 GHz ≤ 3.0°, 6 GHz to 12 GHz

¹ The nominal phase is defined by the Offset Delay, the Offset Loss and the Fringing Capacitances.

Mechanical data

Mating cycles	≥ 100
Maximum torque	5 Nm
Recommended torque	2 Nm
Gauge	2.80 mm to 2.90 mm

General standard definitions

For proper operation the vector network analyzer (VNA) needs a model describing the electrical behaviour of this calibration standard. The different models, units, and terms used will depend on the VNA type and they will have to be entered into the VNA. All values are based on typical geometry and plating.

Offset Z_0 / Impedance / Z_0	50 Ω
Offset Delay	80.055 ps
Length (electrical) / Offset Length	24.00 mm
Offset Loss	0.70 G Ω /s
Loss	0.0097 dB/ $\sqrt{\text{GHz}}$
Fringing Capacitances ²	

² Fringing Capacitances are determined individually for each open circuit and are documented in a Calibration Certificate.

Environmental data

Operating temperature range ³	+ 20 °C to +26 °C
Rated temperature range of use ⁴	0 °C to +50 °C
Storage temperature range	- 40 °C to +85 °C
RoHS	compliant

³ Temperature range over which these specification are valid.

⁴ This range is underneath and above the operating temperature range, within the open circuit is fully functional and could be used without damage.

Declaration of calibration options

Factory Calibration

Standard delivery for this calibration standard includes a Factory Calibration. The Calibration Certificate issued reports individual calibration results, traceable to national / international standards. Model based standard definitions are individually optimized and reported in an Agilent/Keysight, Rohde & Schwarz and Anritsu compatible VNA format.

Accredited Calibration

Not available.

For further, more detailed information see application note AN001 on the Rosenberger homepage.

Calibration interval

Recommendation 12 months

Packing

Standard 1 pce in box
Weight 62.0 g/pce

While the information has been carefully compiled to the best of our knowledge, nothing is intended as representation or warranty on our part and no statement herein shall be construed as recommendation to infringe existing patents. In the effort to improve our products, we reserve the right to make changes judged to be necessary.

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
Marcel Panicke	02.09.16	Markus Müller	24.05.17	b00	17-0590	Marion Striegler	24.05.17

Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O.Box 1260 D-84526 Tittmoning Germany www.rosenberger.de	Tel. : +49 8684 18-0 Email : info@rosenberger.de	Page 3 / 3
--------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------	---------------